

## ABSTRACT OF THE DISCLOSURE

A 2-bit cell is made up by first and second diffusion regions provided in a substrate surface in separation from each other, first and second dielectric films provided on the substrate adjacent to the first and second diffusion region, first and second gate electrodes provided on first and second dielectric films, a third insulating film provided on the substrate and a third gate electrode provided on the third insulating film.

The first and second gate electrodes are connected common to form word line electrodes. A control gate electrode extending in a direction at right angles to the word line electrodes and a third diffusion region in the substrate surface disposed at a longitudinal end of the control gate electrode are provided. In reading a storage node Node1 of interest, read operation is performed with the control gate channel as a drain, such that the storage node Node1 of interest is read without the intermediary of the node Node2 which is not of interest, with the consequence that read of the node Node1 is not affected by the node Node2 which is not of interest.